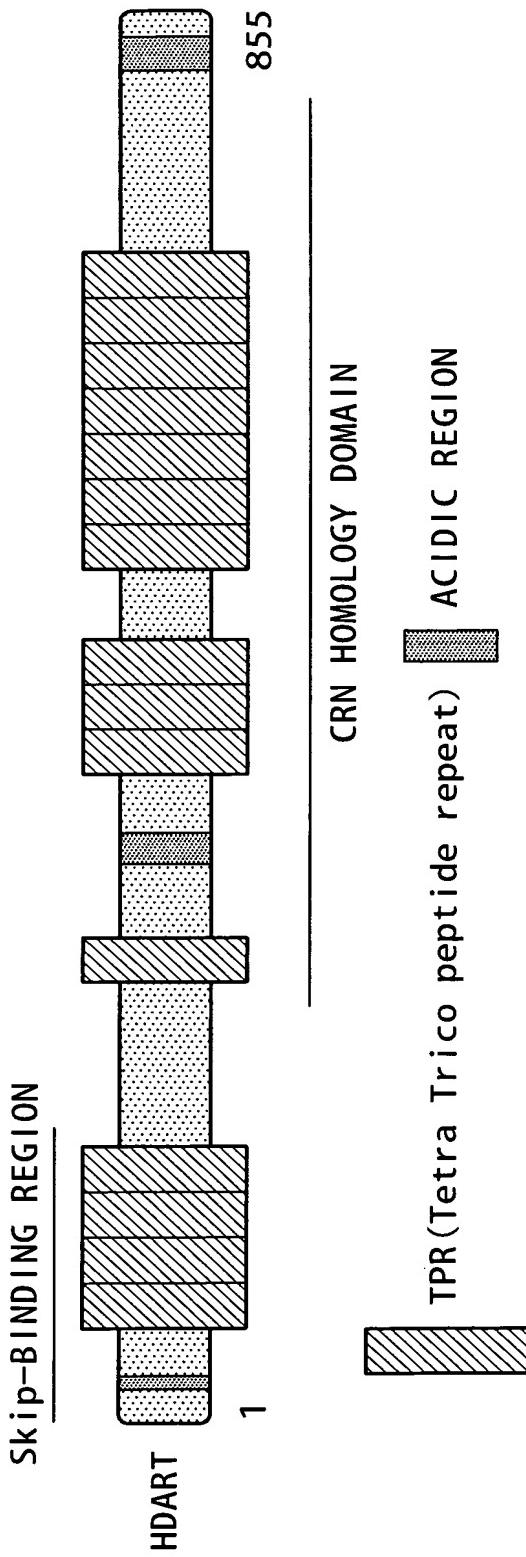


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FIG. 1



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## FIG. 2

Score = 75.5 bits(184), Expect = 3e-12  
Identities = 134/589(22%), Positives = 228/589(37%), Gaps = 127/589(21%)

HDART: 262 LADYYIRSGHFEKARDVYEEAIRTVMTVRDFTQVFDSYAQFEESMIAAKMETASELGREE 321  
L DY +R R +E+ IR TV + YAQ+EES+ +++ A +  
CRN : 208 LNDYKLRK-----RKTfednirknrtv---ISNWIKYAQWEESL--KEIQRARSITYERA 256

HDART: 322 ED----DVDLELRLARFE----QLISRRPLLLNSVLLRQNPHVHEWHKRVALHQGRPRE 373  
D ++ L L+ A E Q+ R + ++ P W+K + E  
CRN : 257 LDVDYRNITLWLKYAEMEMKNRQVNHARNIWDRAITTL--PRVNQFWYKYTYME----E 309

HDART: 374 INTYTEAVQTVDPFKATGKPTLWVAFAKYEDNGQLDDARVILEKATKVNFQVDDLA 433  
++ A Q + + W ++ F ++D AR I E+ F V  
CRN : 310 MLGNVAGARQVFERWMEWQPEEQAWHSYINFELRYKEVDRARTIYER----FVLVHPDV 364

HDART: 434 SWCQCGELELRHENYDEALRLLRKATALPARRAEYFDGSEPVQNRVYKSLKVWSMLADL 493  
W + E +H + A ++ +A E+F G E + +Y + A  
CRN : 365 KNWIKYARFEEKHAYFAHARKVYERAV----EFF-GDEHMDEHLYVAF----AKF 410

HDART: 494 EESLGTFOSTKAVYDRILDLRIA---TPQIVINYAMFLEEHKY----- 533  
EE+ F+ + +Y LD RI+ ++ NY +F E K+  
CRN : 411 EENQKEFERVRVIKYALD-RISKQDAQELFKNYTIF--EKKFGDRRGIEDII VSKRRFQ 467

HDART: 534 FEESFKA-----YERGISLFKPWNVSDIWSTYLTKFI- 565  
+EE KA YER I+ W Y+ +I  
CRN : 468 YEEEVKANPHNYDAWFYLRLVESDAEAEAVREYERAIANVPPIQEKRHWKRYIYLWIN 527

HDART: 566 ----ARYGGRKLERARDLFEQALDGCPPK---YAKTLYLLYAQLE---EEWGLARHAMAV 615  
+ ER R +++ +L+ P K +AK +++LYAQ E + LAR A+  
CRN : 528 YALYEELEAKDPERTRQVYQASLELIPHKKFTFAK-MWILYQAQFEIRQKNLSLARRALGT 586

HDART: 616 YERATRAVEPAQQYDMFNIYIKRAAEIYGVTHTRGIYQKAIEVLSDEHAREMC---LRFA 672  
++ + +F +YI+ ++ R +Y+K +E E C ++FA  
CRN : 587 -----SIGKCPKNKLKFVYIELELQLREFDRCRKLYEKLEF----GPENCTSWikfa 635

HDART: 673 DMECKLGEIDRARAISFCSQICDPR--TTGAFWQTWKDFEVRHGNEDTIKEMLRIRRSV 730  
++E LG+IDRARAIIY I PR W+++ DFE+ E+T + RR +  
CRN : 636 ELETILGDIDRARAIIYELA--ISQPRLDMPPEVLWKSYIDFEIE--QEETERTRNLYRRLL 691

HDART: 731 QATYNTQVNFMASQMLKVSGSATGTVSDLAPGQSGMDMKLLEQRAEQL 779  
Q T + +V +Q SG + M+ E++ E+L  
CRN : 692 QRTQHVVKWVISFAQFELSSGKEGSLTKCRQIYEEANKTMRNCEEKEERL 740

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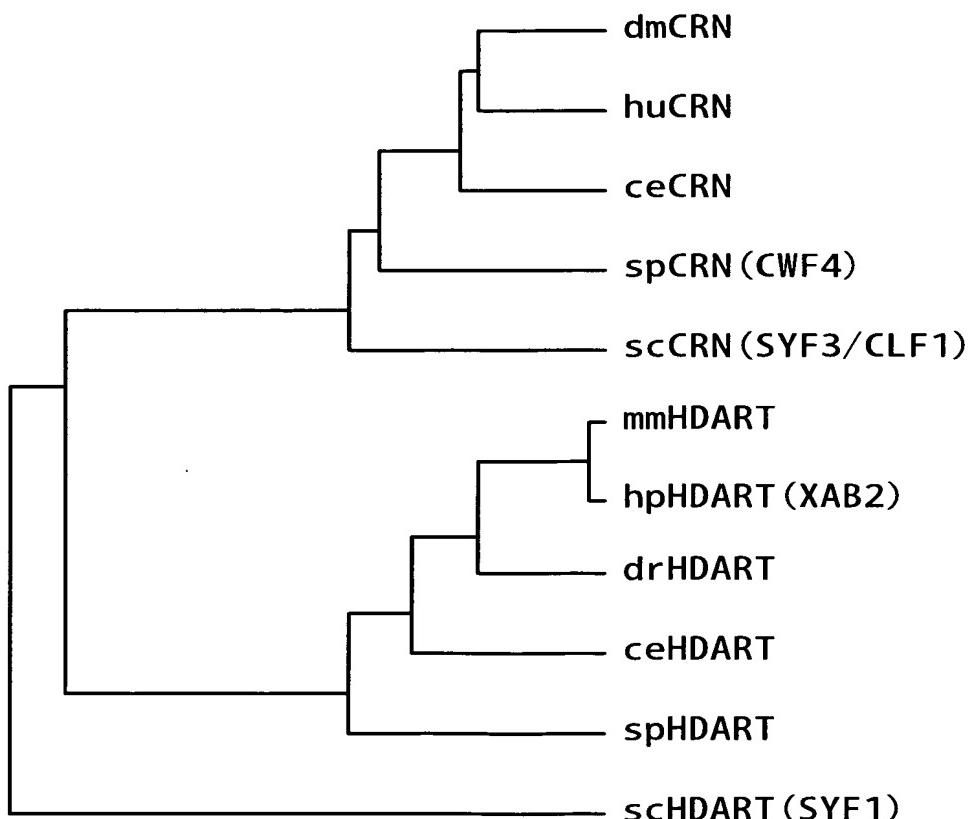
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## F I G. 3

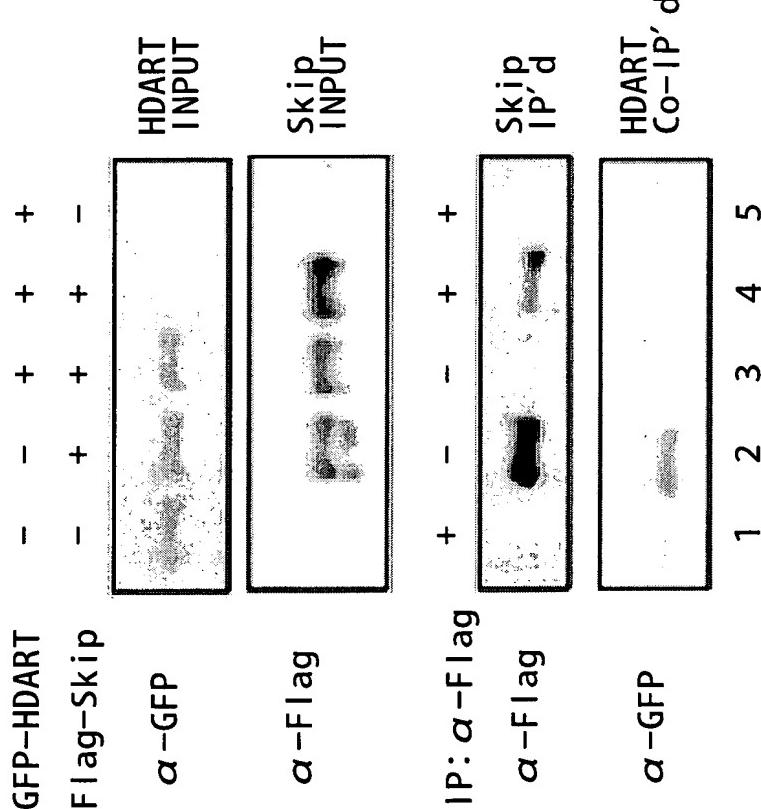


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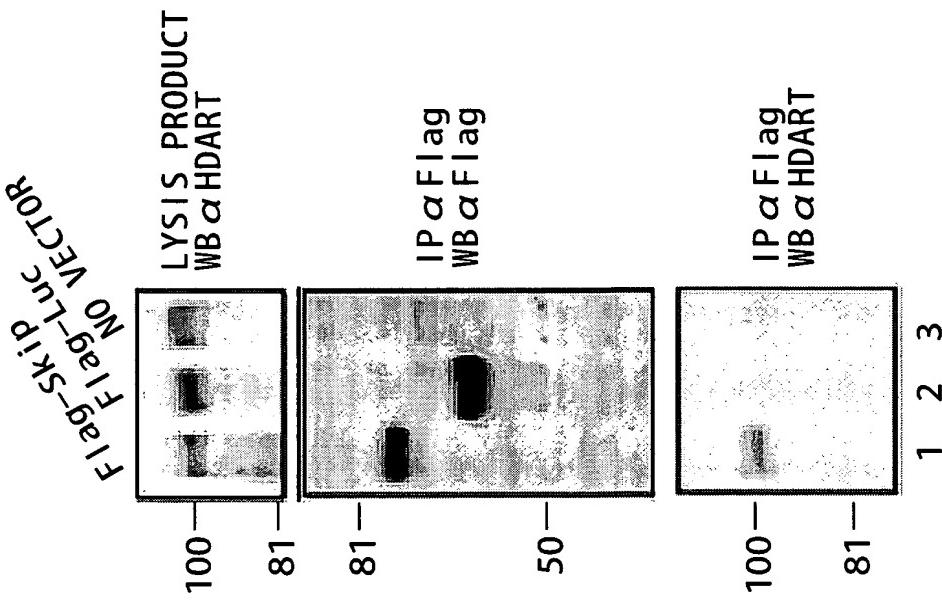
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## F | G. 4 A



## F | G. 4 B



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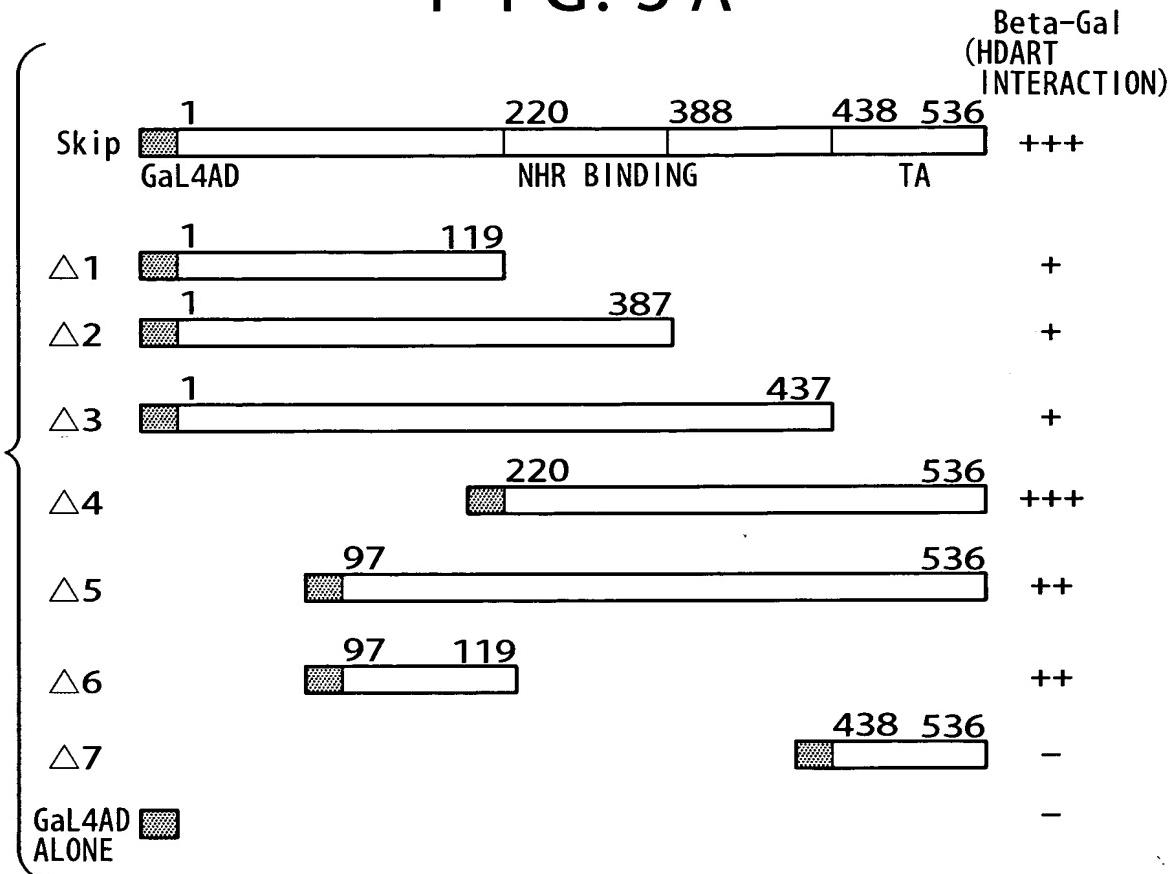
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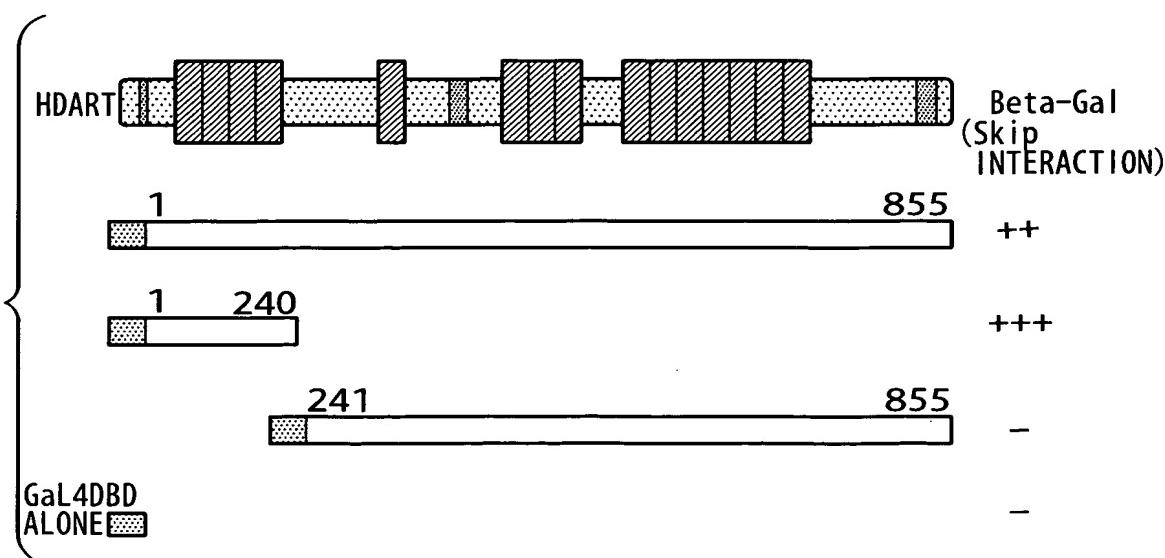
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## FIG. 5 A



## FIG. 5 B

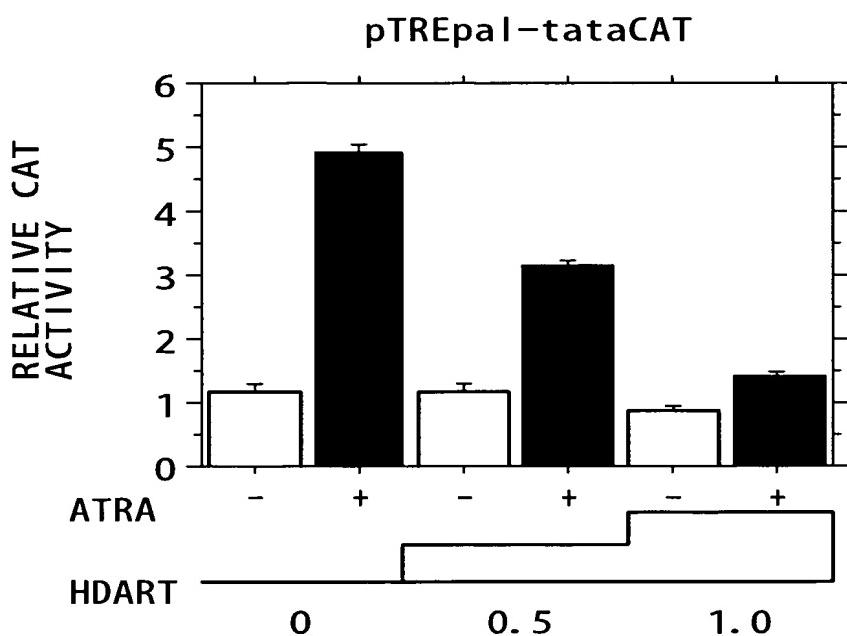


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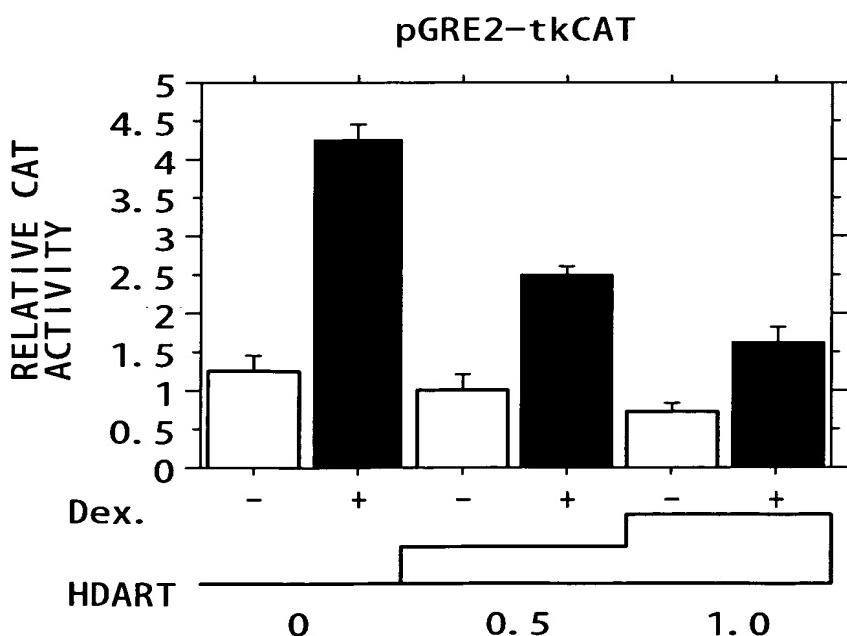
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FIG. 6 A



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FIG. 6 B

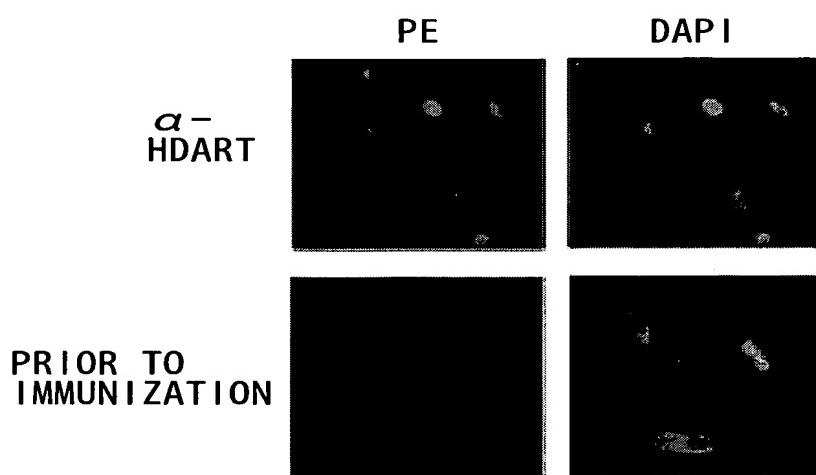


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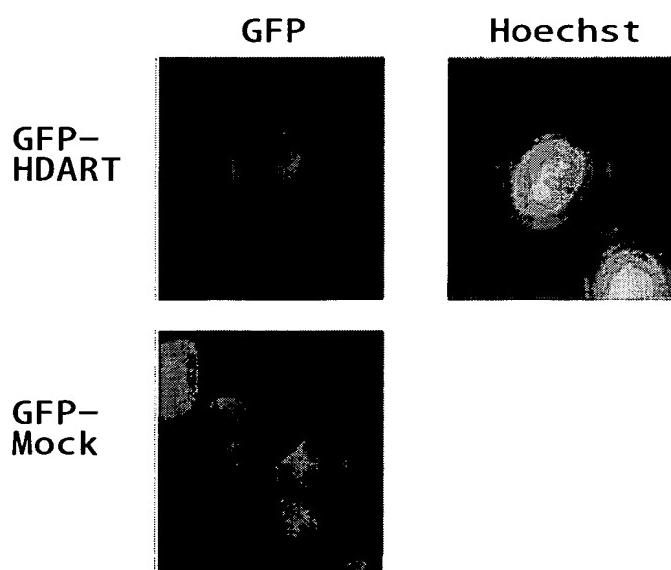
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F I G. 7 A



F I G. 7 B

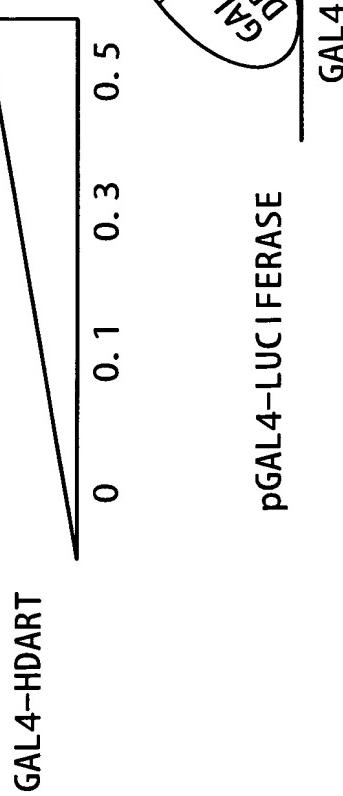
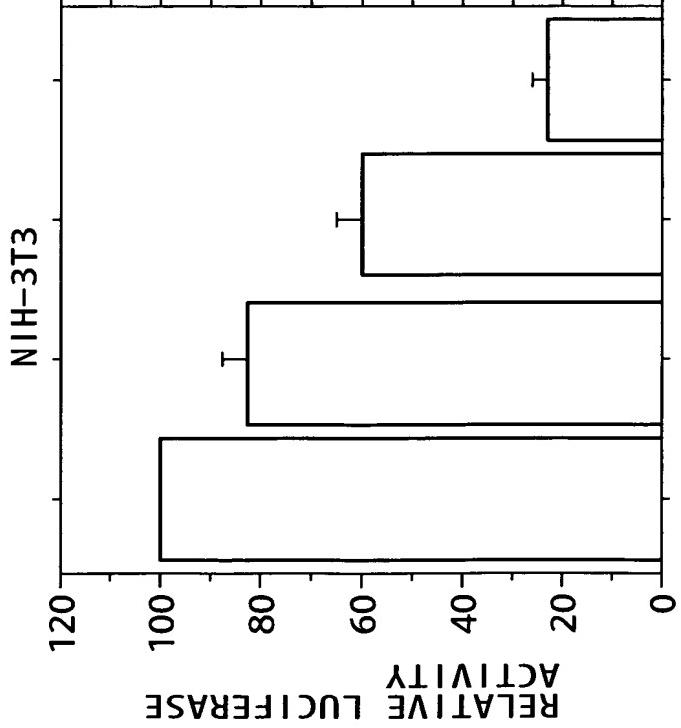


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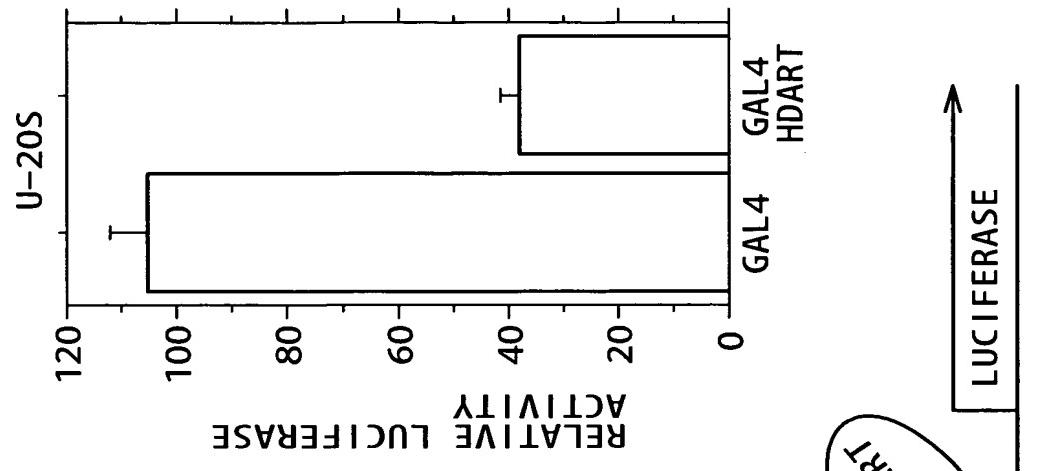
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F | G. 8 A



F | G. 8 B



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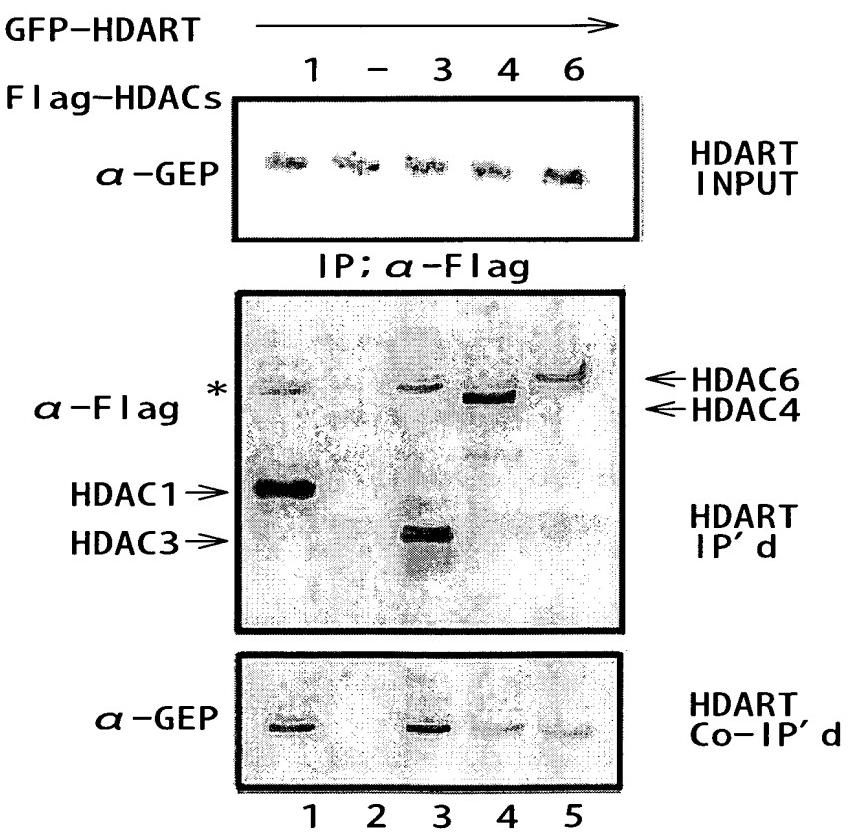
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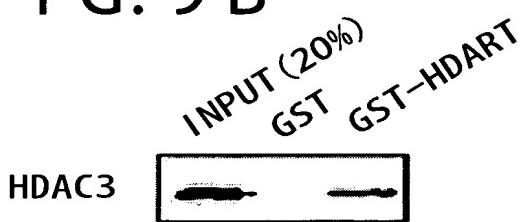
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## FIG. 9 A



## FIG. 9 B

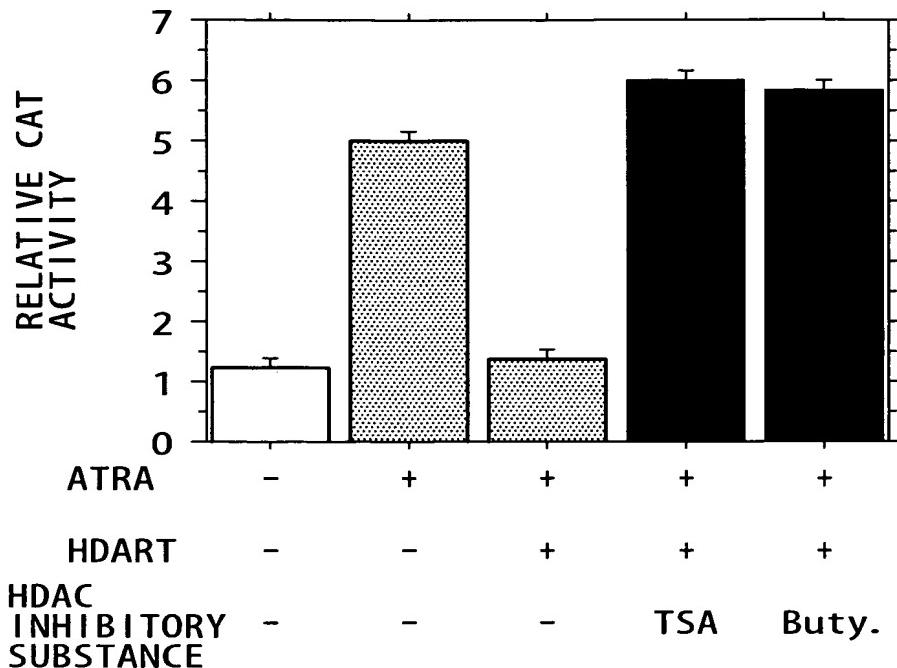


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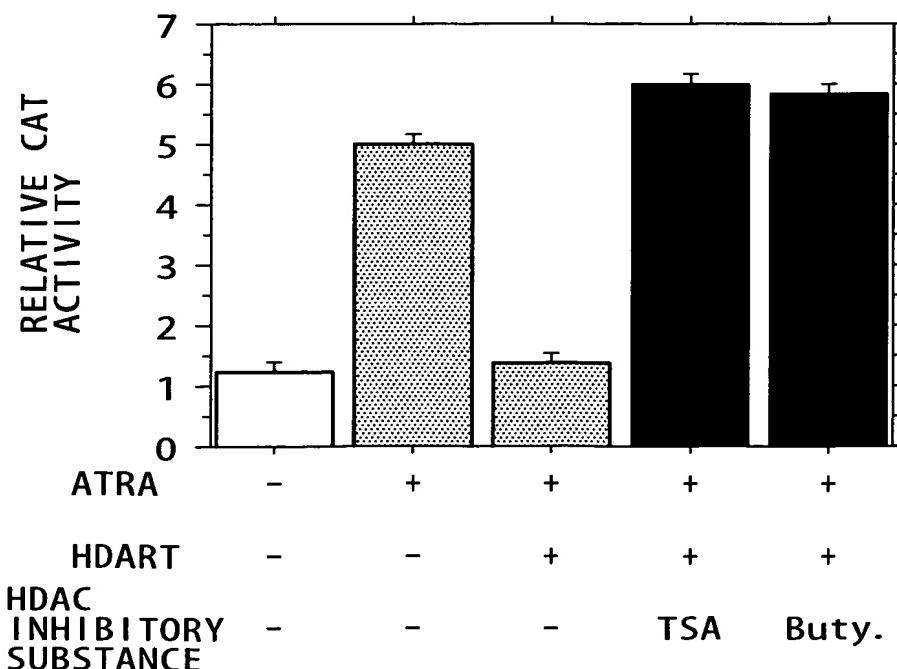
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F I G. 10 A  
pTREpal-tataCAT



F I G. 10 B  
pGRE2-tkCAT



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FIG. 11A

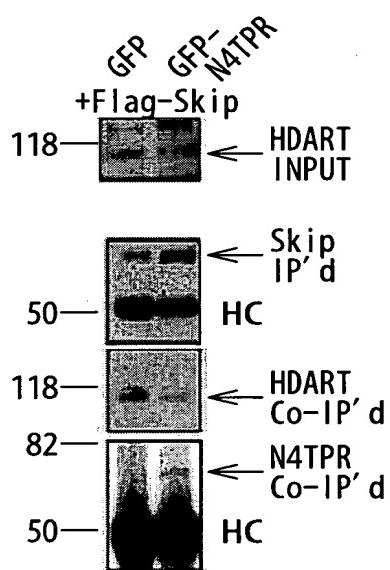
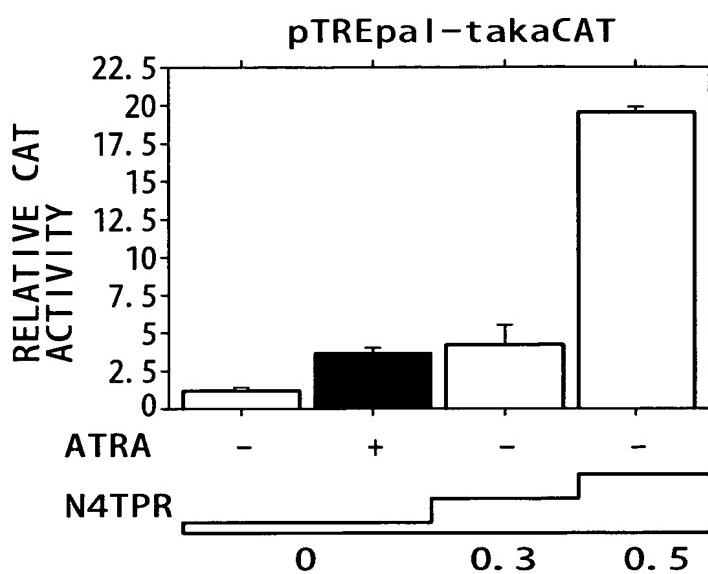
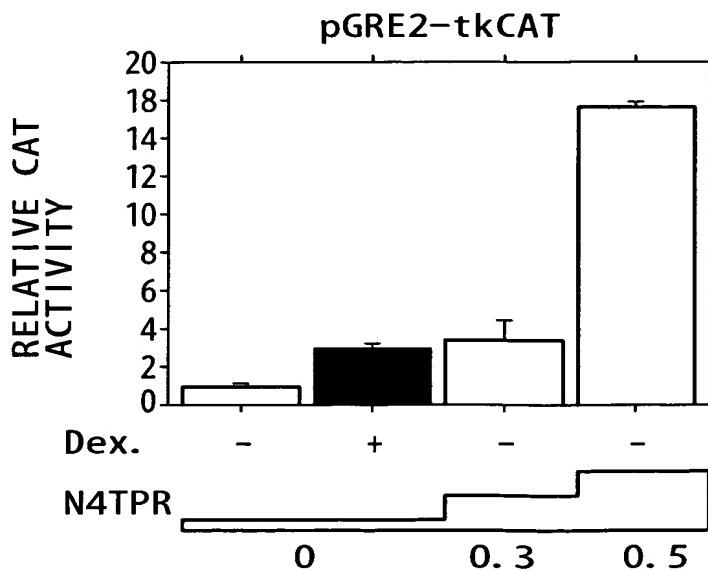


FIG. 11B



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FIG. 11C



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FIG. 12A

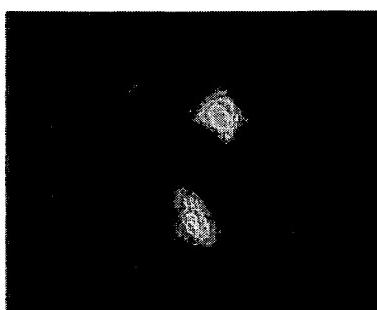


FIG. 12B

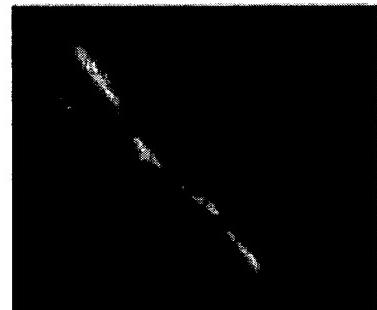


FIG. 12C

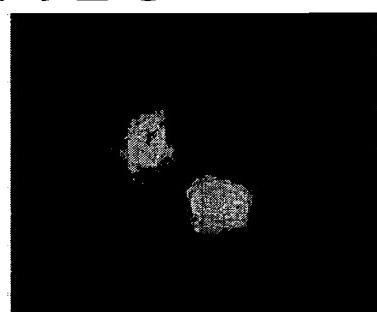


FIG. 12D



FIG. 12E

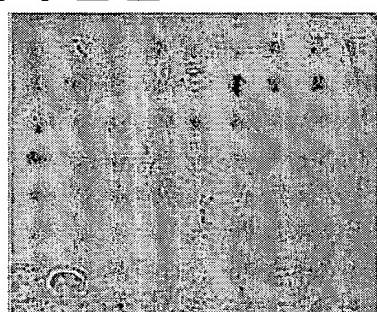


FIG. 12F

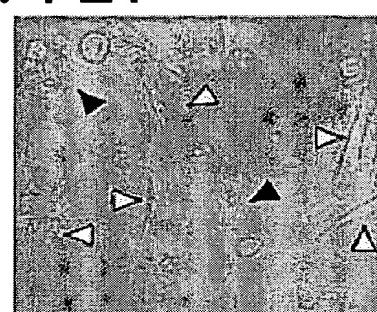
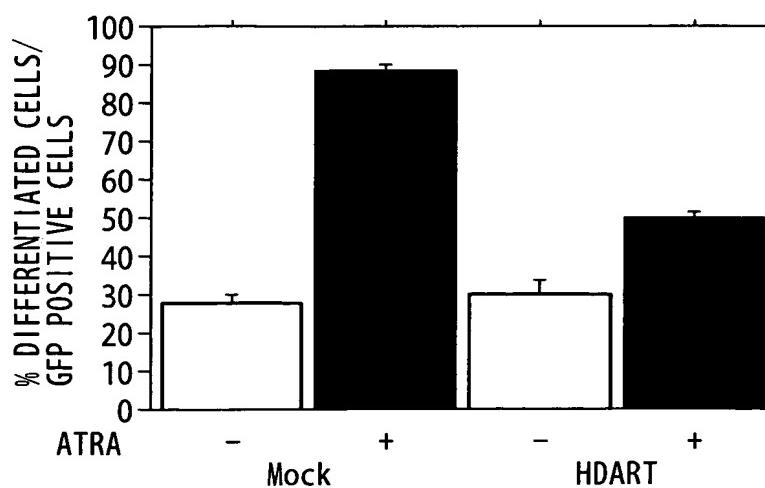


FIG. 12G



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